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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,642

07/01/2004

Edward Edwardo Tapanes

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07/11/2008

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EXAMINER

BEDTELYON, JOHN M

ART UNIT

PAPER NUMBER

2874

MAIL DATE

DELIVERY MODE

07/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,642	Applicant(s) TAPANES, EDWARD EDUARDO	
	Examiner JOHN M. BEDTELYON	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12, 13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/23/2008 has been entered.

Response to Amendment

2. This action is responsive to the amendment and remarks submitted 04/23/2008. Claim 12 is amended. Claim 14 is canceled. Claims 16-20 are newly added. Claims 1-13 and 15-20 are currently pending in the application.

Response to Arguments

3. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12, 13, 15, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Haefner (US Patent 5,012,679, hereinafter Haefner).

5. **With respect to claim 12**, Haefner teaches:

A below ground perimeter security system (figures 1-3) comprising:

at least one first waveguide (13a);

at least one second waveguide (13b);

means for launching light (1) into the first and second waveguides, so that the light is able to propagate along the first and second waveguides;

means for receiving the light (4b) from the first and second waveguides so that the light can interfere; and

a detector (5) for detecting the interfering light from the first and second waveguides to detect a change in a parameter of the light propagating through the first and second waveguides due to the traversing of a barrier region to provide an indication of an intrusion across the barrier region;

the at least one first waveguide being contained in a first cable (14) and the at least one second waveguide being contained in a second cable (22); the first and second waveguides being sensitive waveguides and forming a sensor for detecting a

breach of the barrier region (see figures 1-3 and the corresponding portions of the specification); and

the first and second cables being arranged below ground level and in a zig-zag (see figure 2) spaced apart relationship relative to one another to define the barrier region which, should the region be traversed at ground level, will result in detection of the traversing of that barrier region.

The limitation of being arranged below ground is being interpreted as an intended use of the device. The Haefner device is capable of being used below ground and therefor meets this limitation.

With respect to claims 13 and 15, Haefner teaches wherein the first and second waveguides are coupled together by a coupler (4a) so that the light circulates through the waveguides in counter propagating manner (see figure 1, the Mach Zehnder type interferometer formed by the waveguides can be considered to have a clockwise propagating portion, 3a, and a counterclockwise propagating portion, 3b, forming a loop, which can be considered counter propagating) to enable not only the detection of intrusion, but also the location of the intrusion (as the Haefner reference teaches an identical structure as that of the claimed structure, the functions and properties associated with using the device are presumed to be inherent, see MPEP 2112.01).

With respect to claim 16, Haefner teaches an embodiment where the light-guides comprise multiple optical fibers, which would be disposed in each cable (see figure 10).

With respect to claim 19, Haefner teaches wherein the zig zag pattern of the first cable is opposite to the of the econd cable (see figure 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haefner (US Patent 5,012,679, hereinafter Haefner).

With respect to claim 17, Haefner teaches the limitations of claim 12 as previously stated.

Haefner is silent to the first and second cables comprising commercial grade 2 or 4 core tight buffered optical fiber communications cables.

The Examiner takes official notice that commercial grade 2 or 4 core tight buffered optical fiber communication cables are well known in the optical fiber cable art.

Because Haefner teaches the use of optical fiber cables, and 2 or 4 core tight buffered optical fiber communication cables are well known in the optical fiber cable art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the optical fiber cables of Haefner for other known optical fiber cables to achieve the predictable result of guiding light via total internal reflection.

With respect to claim 18, Haefner teaches the limitations of claim 12 as previously stated.

Haefner is silent to the exact dimensions of the optical fiber cables.

It would have been an obvious matter of design choice to make the cables a specific diameter, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). By using a desired diameter of optical cable, one of ordinary skill in the art would be able to appropriately size the entire device based upon the area of coverage desired.

With respect to claim 20, Haefner teaches the limitations of claim 12 as previously stated and that the light-guides ranged from fractions of meters in length to several kilometers (column 3, lines 6-9), which would dictate the entire size of the device.

Haefner is silent to the width of the barrier region being between 1 and 2 meters.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to size the barrier region to a specific range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Specifically sizing the barrier region would allow for the pressure sensing device to be used for any desired purpose.

Allowable Subject Matter

8. Claims 1-11 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. BEDTELYON whose telephone number is (571)270-1290. The examiner can normally be reached on Monday - Friday, 10:00am - 6:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JMB/
Examiner, Art Unit 2874

/Kevin S Wood/
Primary Examiner, Art Unit 2874